

# Interim Findings of the Research Project on Sebaceous Adenitis (SA)

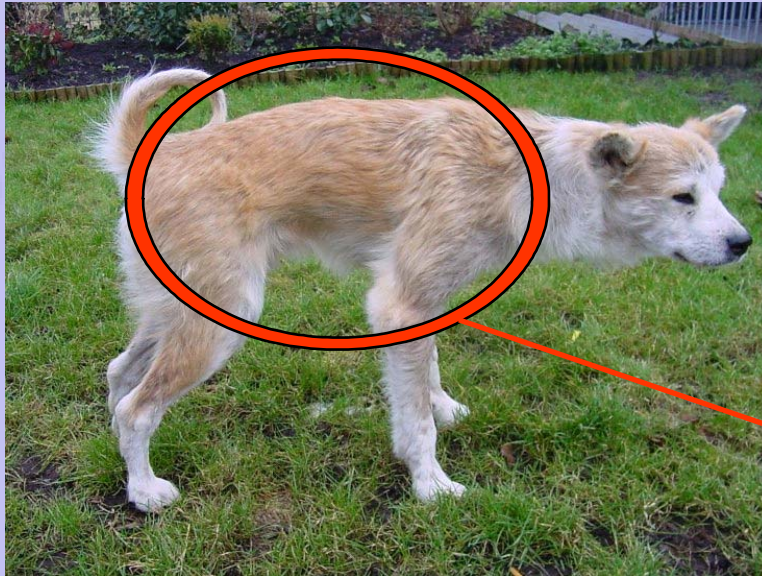


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Institute of Veterinary Medicine  
University of Göttingen

# SA affected Akita



Hokuun



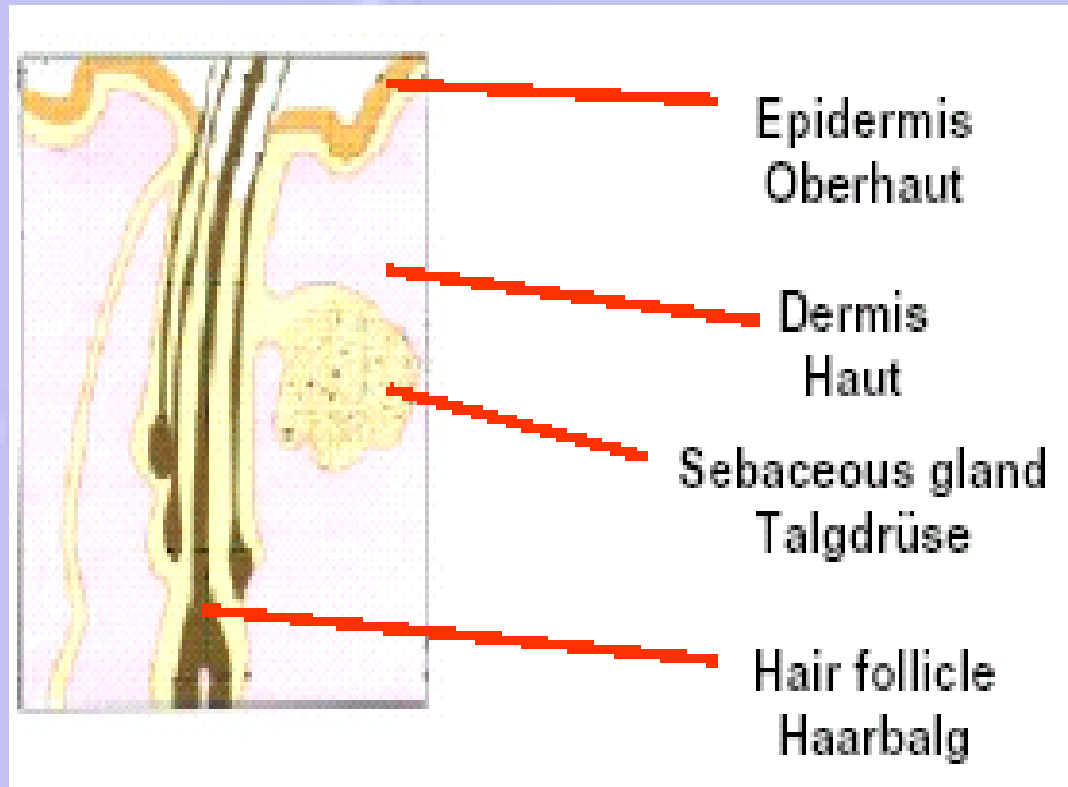
Photograph: Joop & Astrid Ouwerkerk



Photograph: H. Mewes



# Anatomy of the sebaceous gland



# Developing a Genetic Test

**The research approach**

**Material: Biopsy and Blood**

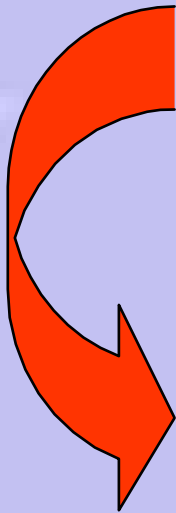
## **1. Protein Screen**

- 1.1. 1D Electrophoresis**
- 1.2. 2D Electrophoresis**
- 1.3. Protein-Sequencing (MALDI-TOF)**

## **2. RNA-Status**

- 2.1. Differential-Display**
- 2.2. DNA-Sequencing**

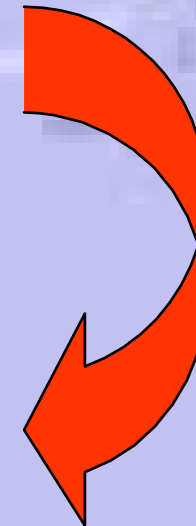
# Developing a Genetic Test



Blood



Biopsie



Begin gathering samples since 2003

# Developing a Genetic Test

The sample collection in Göttingen:

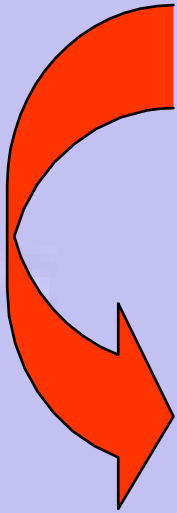
15 SA-affected Akitas:

15x2 biopsies

15x2 blood-samples

} The samples are stored at -80C

# Developing a Genetic Test



Biopsie

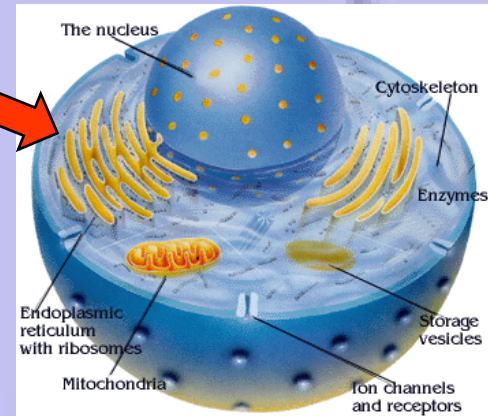
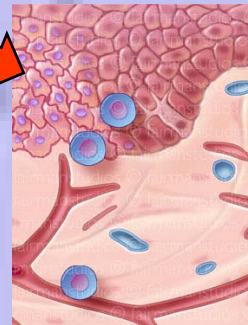
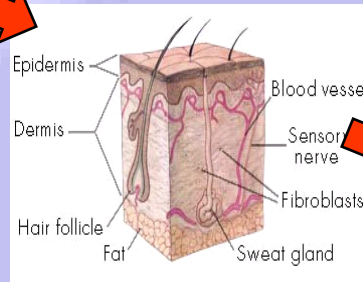
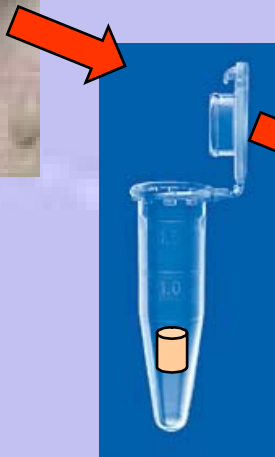


- Research Project:  
Analysis of biopsie

# Developing a Genetic Test

- Protein-Screen:Biopsie

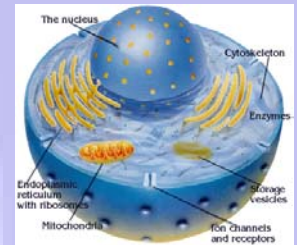
## Overview: Proteins



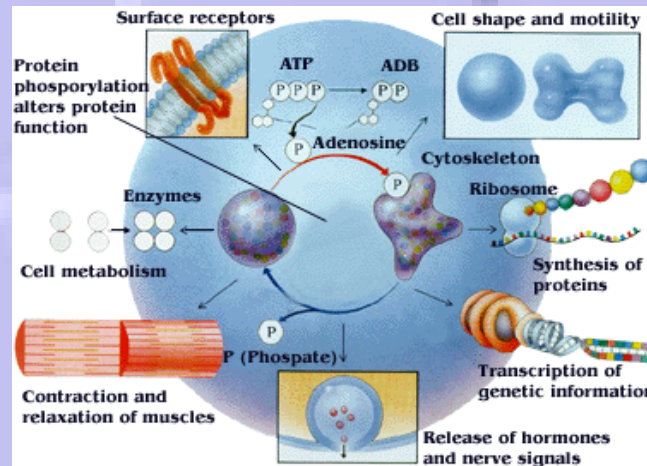


# Developing a Genetic Test

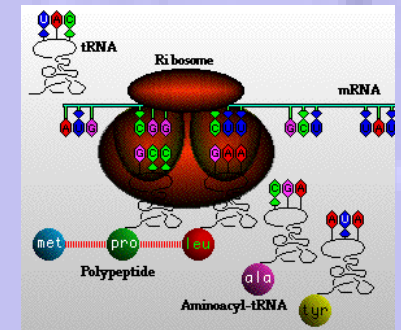
- Protein-Screen: Biopsie  
 Overview: Proteins



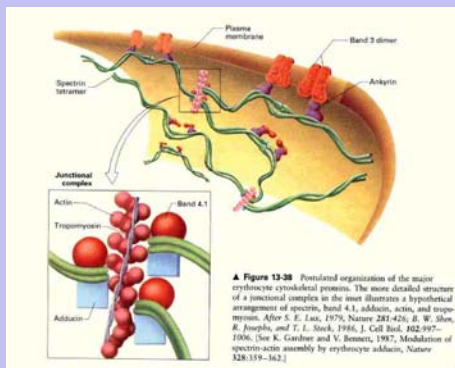
Proteins of intermediate solubility



Soluble Proteins  
 (Cytosolic Proteins)



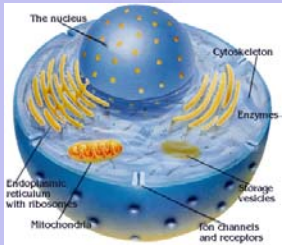
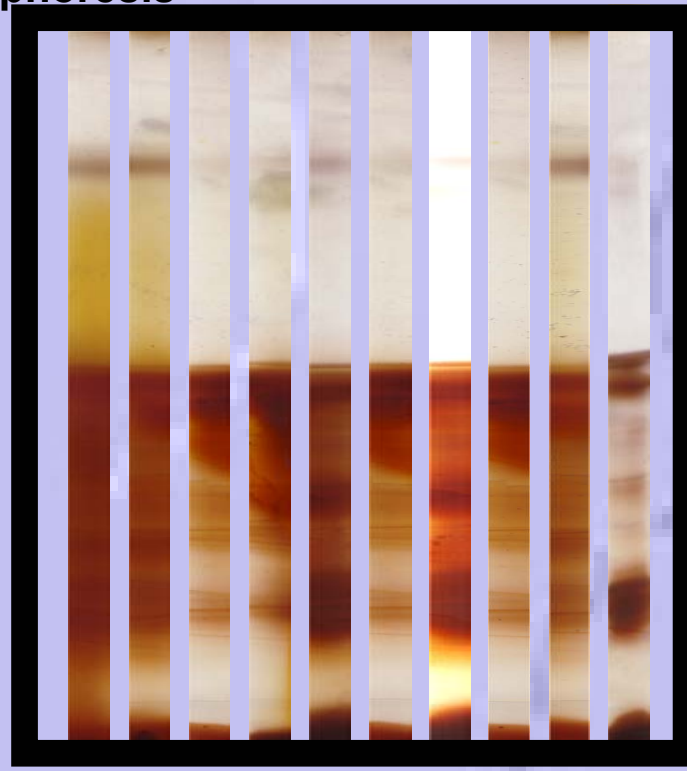
Insoluble Proteins



# The research approach

- **Protein Screen: Biopsie (R1)**

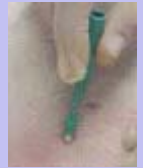
## 1.1. 1D Electrophoresis



SA+

SA-

Samples



Biopsie



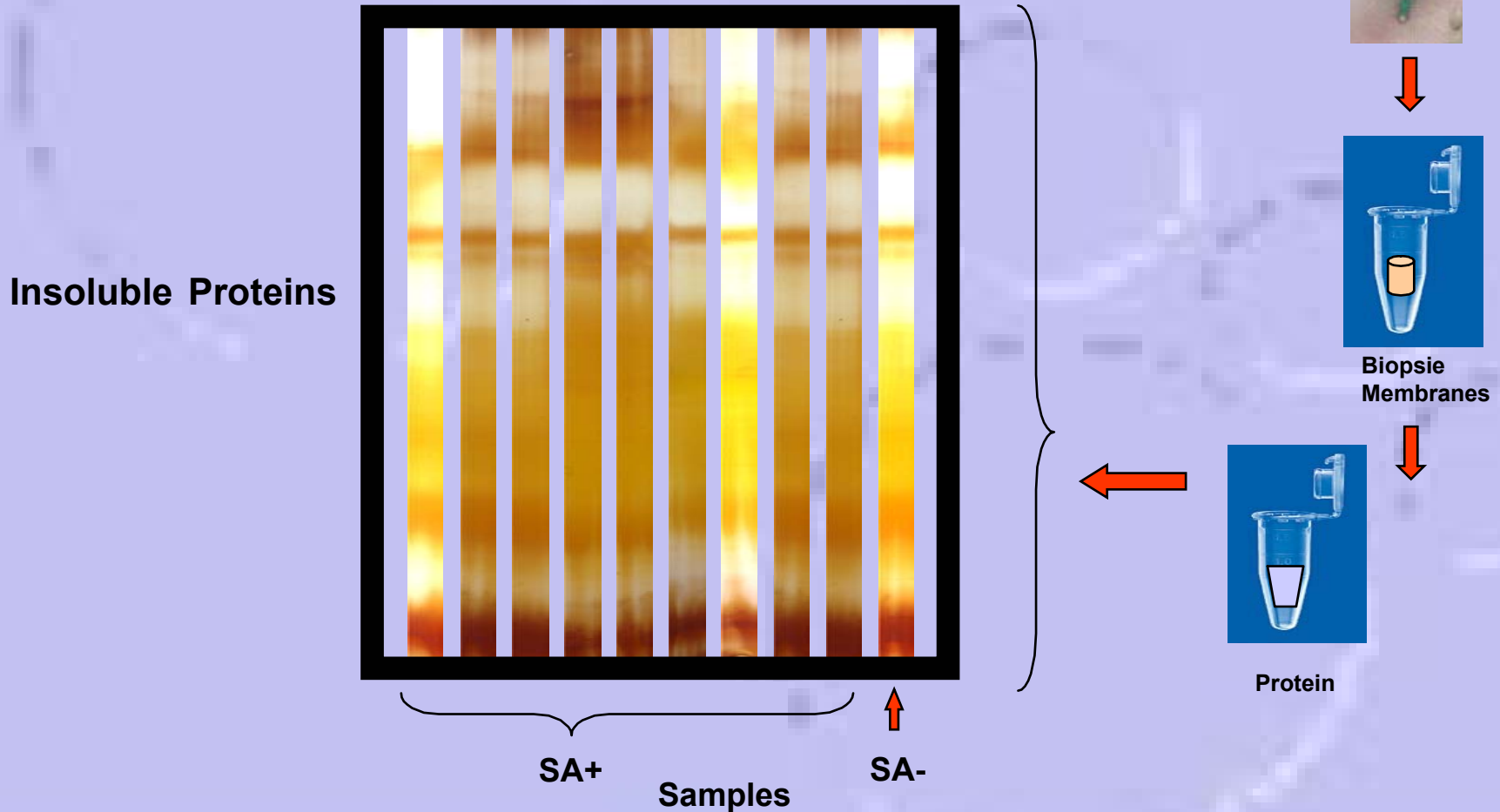
Protein



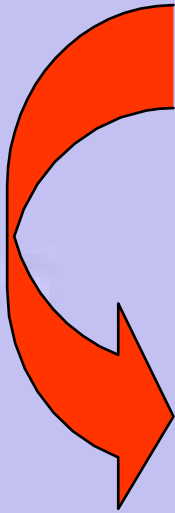
# The research approach

- **Protein Screen: Biopsie (R3)**

- 1.1. 1D Electrophoresis



# Developing a Genetic Test



Blood



- Research Project:  
Analysis of blood

# Developing a Genetic Test

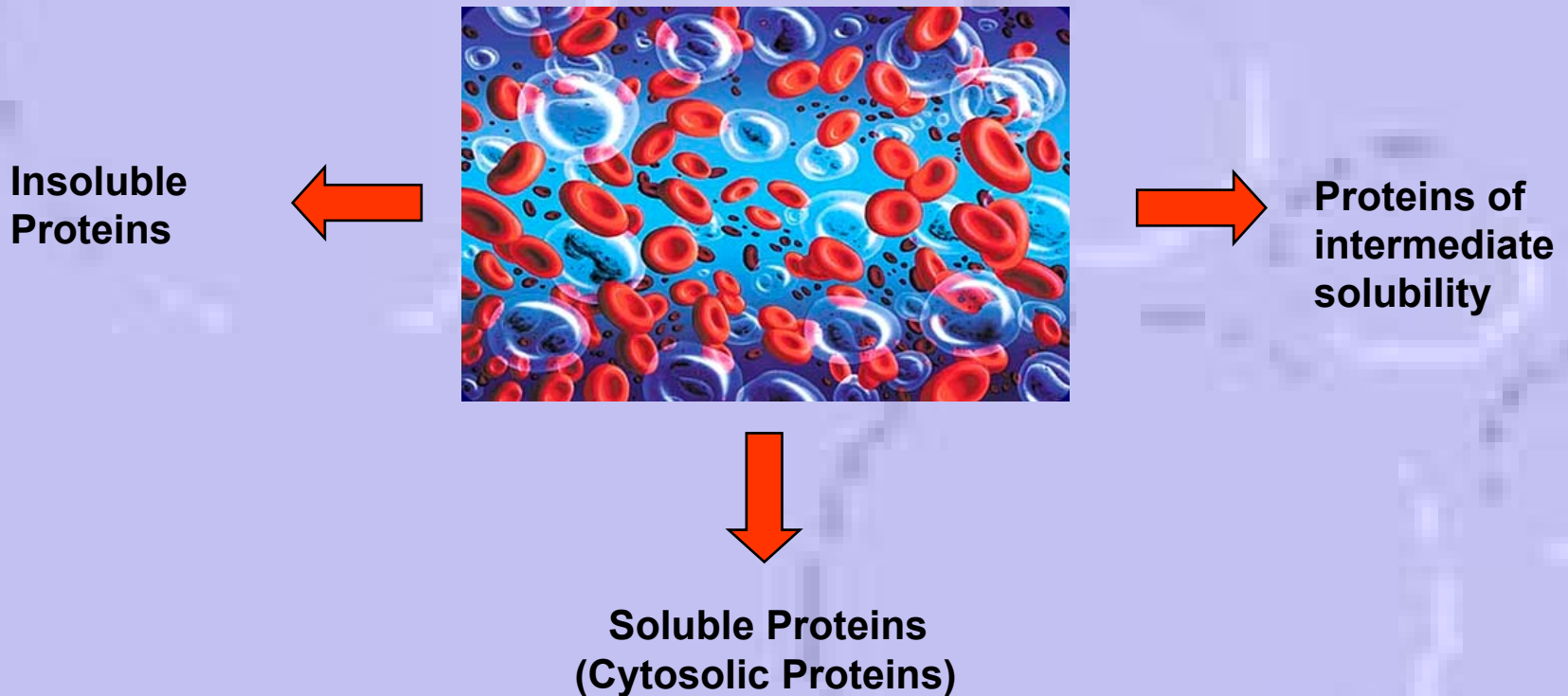
- Protein-Screen: Blood



Overview: Blood-proteins

# Developing a Genetic Test

- Protein-Screen: Blood

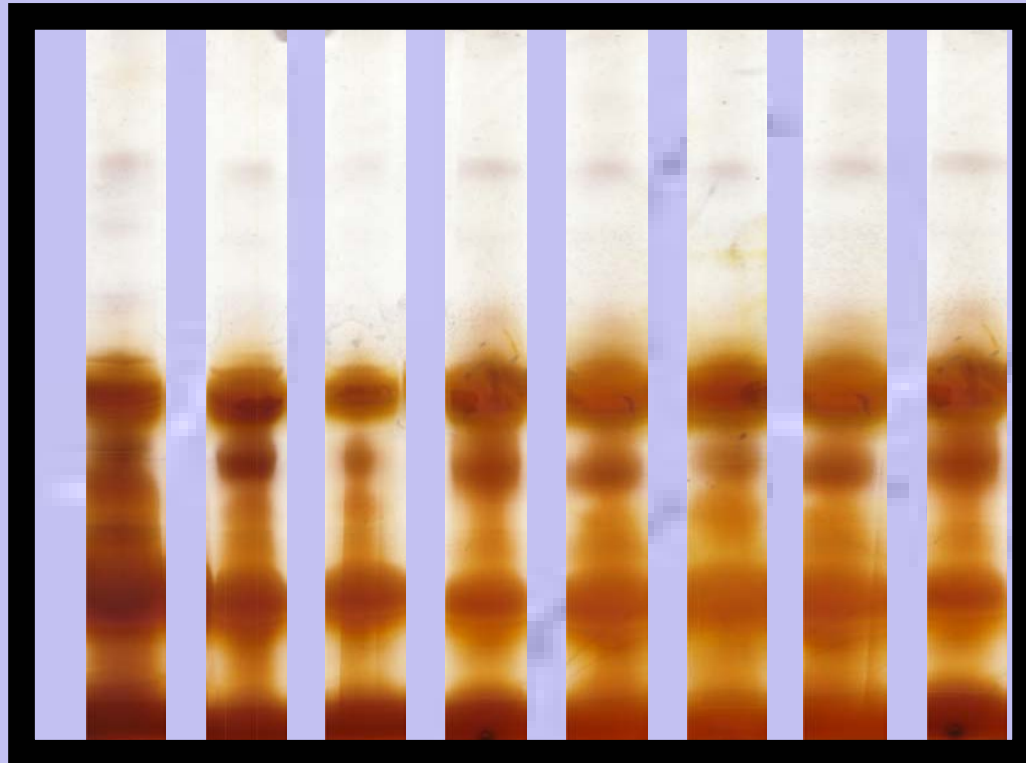
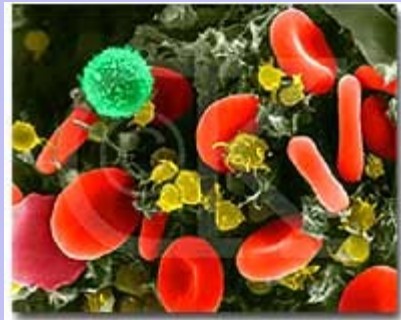


# The research approach

- **Protein Screen: Blood (R1)**

- 1.1. 1D Electrophoresis

**Soluble Proteins:  
Cytosolic Proteins**



SA+

SA- ↑

Samples



Blood



Protein

# The research approach

- **Protein Screen: Blood (R3)**

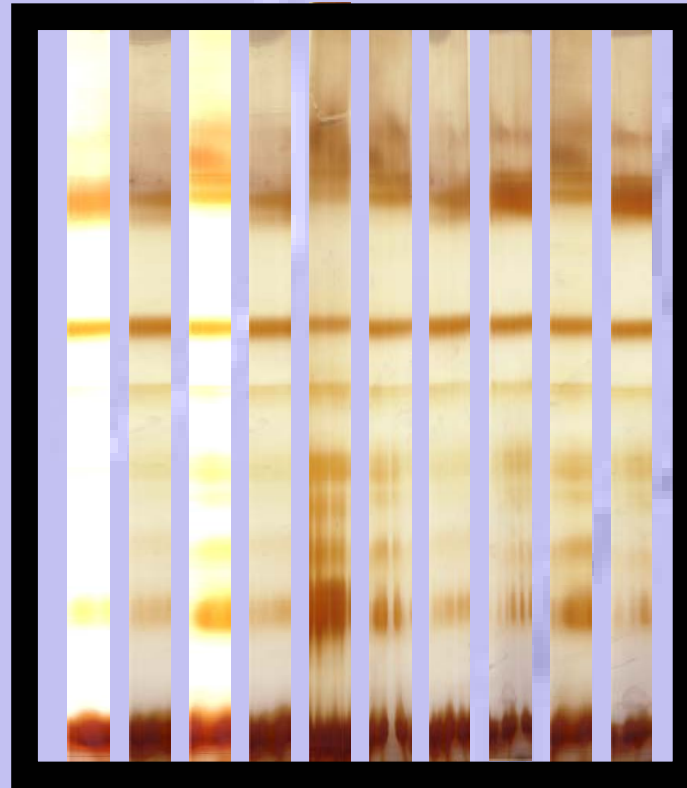
- 1.1. 1D Electrophoresis



**Blood Membranes**



**Protein**



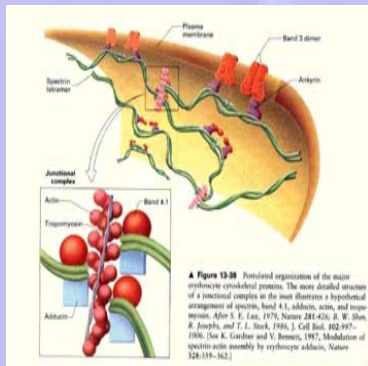
**SA+**

**Samples**

**SA-**



**Insoluble Proteins**





# Developing a Genetic Test

## Interim Findings

**Material: Biopsie and Blood from SA+ and SA- Akitas**

### 1. Sequential Protein Screen

#### 1.1. Biopsie

1.1.2. 1D Electrophoresis Soluble Proteins → 2D Electrophoresis

1.1.3. 1D Electrophoresis Insoluble Proteins → 2D Electrophoresis

#### 2.1. Blood

2.1.2. 1D Electrophoresis Soluble Proteins → 2D Electrophoresis

2.1.3. 1D Electrophoresis Insoluble Proteins → 2D Electrophoresis



**Thank You!**

Hokuun † Feb. 2004

